

ABSTRACT

[0083] The invention provides isolated protein kinase polypeptides homologous to Kinase Suppressor of Ras (KSR), and the isolated nucleic acid molecules that encode these polypeptides. The novel polypeptides and nucleic acid molecules of the invention are termed KSR-2. The invention also provides genetically engineered expression vectors, host cells, and transgenic animals comprising the novel nucleic acid molecules of the invention. The invention additionally provides antisense and RNAi molecules to the nucleic acid molecules of the invention. The invention further provides inhibitors, activators, and antibodies capable of binding to the protein kinase polypeptides of the invention. The invention also provides for the regulation of Cot/Tpl2-mediated cellular functions, such as ERK and NF- κ B activation, as well as IL-8 production, through the use of the nucleic acid and protein kinase polypeptide molecules of the invention.